WHAT IS CLAIMED IS:

1. A liquid crystal display device having a thin film transistor on color filter structure array substrate, comprising:

a gate line and a gate electrode on a substrate, the gate line and the gate electrode being formed of a light-shielding material;

a color filter layer on the substrate, covering edge portions of the gate line and the gate electrode;

an overcoat layer over the substrate covering the color filter, the overcoat layer having openings exposing portions of the gate line and the gate electrode;

a gate insulating layer on the overcoat layer, the color filter layer, the gate line, and the gate electrode;

a semiconductor layer on the gate insulating layer, wherein the semiconductor layer has a width smaller than the gate electrode;

source and drain electrodes on the gate insulating layer, contacting portions of the semiconductor layer, wherein the gate

electrode, the semiconductor layer, the source electrode, and the drain electrode constitute a thin film transistor;

a data line on the gate insulating layer, extending from the source electrode, crossing the gate line, and defining a pixel region;

a passivation layer covering the thin film transistor and the data line and having a drain contact hole exposing a portion of the drain electrode; and

a pixel electrode on the passivation layer, contacting the drain electrode through the drain contact hole.

2. The device according to claim 1, wherein the light-shielding material includes one of aluminum and chromium.

3. The device according to claim 1, further comprising a storage metal layer over the gate line and between the gate insulating layer and the passivation layer.

4. The device according to claim 3, wherein the storage metal layer is formed at an opening in the overcoat layer which exposes the portion of the gate line.

5. The device according to claim 4, wherein the passivation layer has a capacitor contact hole that exposes a portion of the storage metal layer.

6. The device according to claim 5, wherein the pixel electrode contacts the storage metal layer through the capacitor contact hole.

7. The device according to claim 6, wherein the storage metal layer and the portion of the gate line constitute a storage capacitor with the gate insulating layer interposed between the storage metal layer and the gate line.

8. The device according to claim 1, wherein the overcoat layer is formed of an organic material.

9. The device according to claim 8, wherein the organic material is one of benzocyclobutene (BCB) and acrylic resin.

10. The device according to claim 1, wherein the semiconductor layer includes an active layer of amorphous silicon and an ohmic contact layer of doped amorphous silicon.

11. The device according to claim 1, wherein the color filter layer is disposed at the pixel region.

12. The device according to claim 1, further comprising a black matrix under the data line, having the same shape as the data line.

13. The device according to claim 12, wherein the black matrix is formed of the same material as the gate line and the gate electrode.

14. A method of fabricating a liquid crystal display device having a thin film transistor on color filter structure array substrate, comprising:

forming a gate line and a gate electrode on a substrate using a light-shielding material;

forming a color filter layer on the substrate to cover edge portions of the gate line and the gate electrode;

forming an overcoat layer covering the color filter, and having openings that expose portions of the gate line and the gate electrode;

forming a gate insulating layer on the overcoat layer, the color filter layer, the gate line, and the gate electrode;

forming a semiconductor layer on the gate insulating layer, wherein the semiconductor layer has a width smaller than the gate electrode;

forming a data line and source and drain electrodes on the gate insulating layer, the source and drain electrodes contacting portions of the semiconductor layer, wherein the gate electrode, the semiconductor layer, the source electrode, and the drain electrode constitute a thin film transistor, the data

line extending from the source electrode and crossing the gate line to define a pixel region;

forming a passivation layer covering the thin film transistor and the data line, the passivation layer having a drain contact hole exposing a portion of the drain electrode; and

forming a pixel electrode on the passivation layer, the pixel electrode contacting the drain electrode through the drain contact hole.

15. The method according to claim 14, wherein the light-shielding material includes one of aluminum and chromium.

16. The method according to claim 14, further comprising forming a storage metal layer over the gate line and between the gate insulating layer and the passivation layer.

17. The method according to claim 16, wherein the storage metal layer is formed at an opening in the overcoat layer which exposes the portion of the gate line.

18. The method according to claim 17, wherein the passivation layer has a capacitor contact hole that exposes a portion of the storage metal layer.

19. The method according to claim 18, wherein the pixel electrode contacts the storage metal layer through the capacitor contact hole.

20. The method according to claim 19, wherein the storage metal layer and the portion of the gate line constitute a storage capacitor with the gate insulating layer interposed between the storage metal layer and the gate line.

21. The method according to claim 14, wherein the overcoat layer is formed of an organic material.

22. The method according to claim 21, wherein the organic material is one of benzocyclobutene (BCB) and acrylic resin.

23. The method according to claim 14, wherein the semiconductor layer includes an active layer of amorphous silicon and an ohmic contact layer of doped amorphous silicon.

24. The method according to claim 14, wherein the color filter layer is disposed at the pixel region.

25. The method according to claim 14, further comprising forming a black matrix under the data line, wherein the black matrix has the same shape as the data line.

26. The method according to claim 25, wherein the black matrix is formed of the same material as the gate line and the gate electrode.